

**Annual Report on Affordability Findings for Compliance with the Missouri Clean Water Law
Calendar Year 2021
Prepared by Missouri Department of Natural Resources
Water Protection Program**

The General Assembly enacted Section 644.145 of the Revised Statutes of Missouri (RSMo) in 2011, to ensure that the Department of Natural Resources considers affordability when incorporating new requirements for discharges into permits for publicly owned sewer systems or water or sewer treatment works, or when enforcing provisions of Chapter 644 RSMo or the Federal Water Pollution Control Act. This report presents the Department's affordability findings made during calendar year 2021. Whenever the risk of an unaffordable action is high, the Department works with permittees before issuing any final permit or final enforcement action to mitigate impacts where possible and avoid creating an unaffordable situation. These mitigation efforts can include temporary variances, revised compliance schedules, and the reevaluation of financing options.

The statutory definition of affordability with respect to payment of a utility bill is: "a measure of whether an individual customer or household with an income equal to or lower than the median household income for their community can pay the bill without undue hardship or unreasonable sacrifice in the essential lifestyle or spending patterns of the individual or household, taking into consideration the criteria described in subsection 4 of this section." Section 644.145.3(1) RSMo. See Appendix A for the subsection 4 criteria.

Number of Findings of Affordability

The Department conducted 75 findings of affordability with effective dates in calendar year 2021. In all cases where affordability challenges exist, the Department seeks for ways to reduce economic impacts. The most common approach is allowing adequate time in implementation schedules to mitigate potential adverse impacts resulting from the costs of the improvements. The Department also seeks opportunities for struggling systems to regionalize or consolidate with other utilities, on a voluntary basis. Also, the Department uses compliance assistance to work with communities to avoid enforcement actions that would impose penalties that would cause further affordability challenges. By using these and other approaches, all 75 findings were categorized as affordable.

Findings Resulting in Higher Than Normal Rate Increases Compared to Median Household Income

Missouri's affordability statute does not establish a numeric threshold for affordability relative to median household income (MHI), although MHI is commonly regarded as an indicator of potential affordability concerns. Of the 75 actions requiring affordability findings in 2021, only one action would have increased sewer rates to result in a projected sewer rate per user greater than 2 percent of MHI. The Department determined this action still qualified as affordable based on the following facts and circumstances detailed below:

- Corrective actions for the City of Mansfield Wastewater Treatment Facility (WWTF) required by an Abatement Order on Consent (AOC) include elimination of a wet weather outfall by December 31, 2025 and prevention of illegal discharges from the wet weather outfall to the extent practicable during completion of collection system upgrades. Collection system upgrades resulted in an estimated \$5.18 increase in the projected monthly sewer rate, or from \$39.50 to \$44.68 (per

5,000 gallons per month). The existing sewer rate was 1.78 percent of the community's MHI. The costs for compliance would increase sewer rates to 2.014 percent of MHI. Issued under the purview of an enforcement action, additional time has been granted to the City for completion of collection system upgrades, which will provide users a longer timeframe to afford collection system upgrade costs.

Findings Resulting in Projected Increase of Monthly Sewer Rate per User of 100 percent or Higher

Of the 75 actions requiring affordability findings in 2021, there were no new requirements for municipalities that resulted in a projected 100 percent or higher increase of monthly sewer rate per user. For the purpose of this analysis, the Department analyzed compliance efforts that would require a system modification or replacement. Although these permit actions have been determined to be affordable based on the criteria of the statute, the Department will continue to work with each system to identify lower-cost technologies, options for consolidation or regionalization, and opportunities for grants and low-interest loans.

Average Increase in Sewer Rates

For the 75 findings, the projected increases in monthly sewer rates in terms of 2021-dollar values ranged from \$0.00 to \$21.07, with an average of a \$1.09 increase. The projected increases in sewer rates by percentage ranged from 0.0 percent to 82.95 percent, with an average of a 4.14 percent increase.

Average Increase in Sewer Rates as Percentages of MHI

For the 75 findings, the projected increases in sewer rates when calculated as percentages of the respective communities' MHI ranged from 0.000 percent to 0.573 percent, with an average of 0.034 percent. The communities included counties, cities, villages, towns, and census-designated places in which the service users were residing.

Regionalization and Consolidation: An Increasing Choice for Pollution Control

In the Department's ongoing effort to help Missouri citizens thrive by balancing a healthy environment with a healthy economy, one of our primary goals is to promote more efficient, resilient, and sustainable wastewater infrastructure across the State. As small wastewater systems face significant challenges in providing service to their users at a reasonable cost while complying with federal and state regulations, two options are becoming a more favorable option: regionalization and consolidation.

Regionalization refers to sharing physical infrastructure in a defined geographic area when a political or private entity provides wastewater service by physically connecting existing and future communities to a regional or central WWTF. When multiple entities work together, each utility benefits from reduced capital and operational costs, and increased economies of scale.

Consolidation refers to the transfer of ownership and/or operational authority of an independent wastewater system to a larger system. The fundamental advantage of consolidating systems under a central provider is financial — there are simply more customers to share the burden of paying the bills. Another benefit is that small wastewater system owners are able to relinquish the burden of regulatory obligations.

Completed consolidation and regionalization projects in Missouri have already demonstrated the ability to improve services to residents, improve water quality in our rivers, streams, and lakes, and ultimately reduce costs to providers.

List of All the Permit Holders Receiving Affordability Findings

All permit holders for which the Department issued affordability findings in 2021 are provided in Table 1 along with data, including the following items required by Section 644.145.9(4) RSMo:

- a) Current and projected monthly residential sewer rates in dollars;
- b) Projected monthly residential sewer rates as a percentage of median household income; and,
- c) Percentages of households at or below the state poverty rate.

All footnotes within Table 1 are denoted by an asterisk and a number (“*1” through “*19”) and are presented at the end of Table 1.

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2021

(This table is arranged in descending order of the values for the indicator “projected monthly sewer rate per user as a percentage of monthly MHI of the respective community” as presented in the column with the highlighted heading of “Projected Monthly Sewer Rate Per User: % of Monthly MHI.”)

RSMo 644.145.9 Criteria																	
													Federal Mandate	0			
													Not Affordable	0			
													Average *1	Average *2	Average *3		
													\$1.09	4.14%	0.034%	Affordable	75
No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8			
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7						
1	MO-0050610	Mansfield WWTF	UC	\$26,624	545	\$39.50	\$44.68	2.014%	\$5.18	13.11%	0.233%	*11/*16	31.6%	Yes			
2	MO-0042579	Cassville WWTP	S	\$32,211	1,358	\$51.81	\$52.07	1.940%	\$0.26	0.50%	0.010%		32.0%	Yes			
3	MO-0041149	Miller WWTF	UM	\$40,246	300	\$63.25	\$63.25	1.886%	\$0.00	0.00%	0.000%	*11	16.5%	Yes			
4	MO-0094854	Buffalo WWTF	S	\$24,704	1,372	\$38.50	\$38.53	1.872%	\$0.03	0.08%	0.001%		27.7%	Yes			
5	MO-0101273	Iberia WWTF	UD	\$33,031	329	\$43.14	\$51.19	1.860%	\$8.05	18.66%	0.292%		20.8%	Yes			
6	MO-0040738	Boonville WWTF	S	\$38,028	3,072	\$58.75	\$58.81	1.856%	\$0.06	0.10%	0.002%		13.8%	Yes			
7	MO-0094927	Versailles WWTF	S	\$30,662	1,268	\$47.00	\$47.06	1.842%	\$0.06	0.13%	0.002%		26.0%	Yes			
8	MO-0128716	Bates City WWTF	UL	\$54,835	121	\$75.00	\$80.53	1.762%	\$5.53	7.37%	0.121%		9.4%	Yes			
9	MO-0100129	Dixon WWTP	UD	\$34,715	605	\$45.75	\$49.60	1.715%	\$3.85	8.42%	0.133%		20.2%	Yes			
10	MO-0048101	Belle WWTF	S	\$33,441	487	\$44.90	\$44.91	1.612%	\$0.01	0.02%	0.000%		13.9%	Yes			
11	MO-0094692	Laredo WWTF	S	\$37,670	85	\$50.00	\$50.38	1.605%	\$0.38	0.76%	0.012%		17.0%	Yes			
12	MO-0128091	Highlandville WWTF	S	\$48,719	407	\$65.00	\$65.10	1.603%	\$0.10	0.15%	0.002%		11.0%	Yes			
13	MO-0127124	Montgomery City Clear Creek WWTP	S	\$40,350	1,328	\$51.48	\$51.51	1.532%	\$0.03	0.06%	0.001%		17.6%	Yes			
14	MO-0117412	Belton WWTF	S	\$64,468	7,854	\$81.43	\$81.46	1.516%	\$0.03	0.04%	0.001%		9.6%	Yes			

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2021 (Cont.)

No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7			
15	MO-0022331	Holcomb WWTF	UL	\$39,545	375	\$48.63	\$48.63	1.476%	\$0.00	0.00%	0.000%	*11	22.2%	Yes
16	MO-0093068	Pilot Grove West WWTF	UL	\$38,255	143	\$58.75	\$46.88	1.471%	\$0.00	0.00%	0.000%	*15	16.8%	Yes
17	MO-0089443	Peculiar WWTF	S	\$57,301	2,155	\$69.40	\$69.42	1.454%	\$0.02	0.03%	0.000%		7.5%	Yes
18	MO-0116076	Leeton WWTF	UM	\$52,179	550	\$63.00	\$63.18	1.453%	\$0.18	0.29%	0.004%		17.9%	Yes
19	MO-0022985	Seymour WWTF	S	\$36,589	730	\$42.50	\$42.55	1.396%	\$0.05	0.12%	0.002%		21.3%	Yes
20	MO-0104027	Sparta WWTF	S	\$41,956	849	\$48.50	\$48.55	1.389%	\$0.05	0.10%	0.001%		18.8%	Yes
21	MO-0134791	TCRSD, Emory Creek Ranch WWTF	UM	\$40,630	124	\$45.00	\$45.00	1.329%	\$0.00	0.00%	0.000%	*11	17.1%	Yes
22	MO-0041068	Owensville WWTF	S	\$38,478	1,343	\$42.00	\$42.04	1.311%	\$0.04	0.10%	0.001%		14.1%	Yes
23	MO-0054704	Shelbyville WWTF	UD	\$40,866	227	\$43.43	\$43.43	1.275%	\$0.00	0.00%	0.000%	*11	15.6%	Yes
24	MO-0091723	Montrose WWTF	UL	\$44,118	175	\$25.40	\$46.47	1.264%	\$21.07	82.95%	0.573%		19.0%	Yes
25	MO-0022861	Campbell WWTF	S	\$32,926	808	\$32.50	\$32.55	1.186%	\$0.05	0.15%	0.002%		31.7%	Yes
26	MO-0048178	Lilbourn WWTP	S	\$27,574	511	\$27.16	\$27.24	1.185%	\$0.08	0.29%	0.003%		24.5%	Yes
27	MO-0101109	City of Olympian Village WWTF	S	\$54,413	296	\$50.00	\$50.13	1.106%	\$0.13	0.26%	0.003%		18.7%	Yes
28	MO-0127175	Matthews WWTF	S	\$29,590	255	\$26.92	\$27.07	1.098%	\$0.15	0.56%	0.006%		28.5%	Yes
29	MO-0047317	Windsor SE WWTF	S	\$41,202	434	\$36.61	\$36.67	1.068%	\$0.06	0.16%	0.002%		31.1%	Yes
30	MO-0047325	Windsor SW WWTF	S	\$41,202	778	\$36.61	\$36.67	1.068%	\$0.06	0.16%	0.002%		31.1%	Yes
31	MO-0054721	Noel WWTF	S	\$27,521	602	\$ 24.25	\$24.31	1.060%	\$0.06	0.25%	0.003%		38.1%	Yes
32	MO-0023230	New Haven WWTF	S	\$50,581	927	\$43.12	\$43.16	1.024%	\$0.04	0.09%	0.001%		13.3%	Yes
33	MO-0111708	Fair Grove WWTF	S	\$55,043	623	\$45.80	\$45.86	1.000%	\$0.06	0.13%	0.001%		8.4%	Yes

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2021 (Cont.)

No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7			
34	MO-0046078	Rock Port WWTF	S	\$49,167	654	\$38.75	\$38.81	0.947%	\$0.06	0.15%	0.001%		6.7%	Yes
35	MO-0099465	St Clair WWTF	S	\$42,490	2,220	\$32.05	\$32.58	0.920%	\$0.53	1.65%	0.015%		15.9%	Yes
36	MO-0025275	Portageville WWTF	S	\$32,047	1,401	\$24.00	\$24.18	0.905%	\$0.18	0.75%	0.007%		25.7%	Yes
37	MO-0094161	Waynesville WWTF	S	\$47,757	2,337	\$35.25	\$35.33	0.888%	\$0.08	0.23%	0.002%		24.0%	Yes
38	MO-0094188	Tipton WWTF	S	\$50,251	937	\$37.00	\$37.04	0.885%	\$0.04	0.11%	0.001%		15.2%	Yes
39	MO-0026298	Platte City WWTP	S	\$62,105	1,609	\$45.55	\$45.64	0.882%	\$0.09	0.20%	0.002%		7.1%	Yes
40	MO-0025305	Chaffee WWTF	S	\$42,633	1,142	\$30.00	\$30.41	0.856%	\$0.41	1.37%	0.012%		14.2%	Yes
41	MO-0043532	Oran WWTF	S	\$38,767	490	\$25.50	\$25.58	0.792%	\$0.08	0.31%	0.002%		24.2%	Yes
42	MO-0103241	Lake of the Ozarks Regional WWTP #1	S	\$39,620	825	\$25.03	\$25.25	0.765%	\$0.22	0.88%	0.007%		28.6%	Yes
43	MO-0023213	Dexter East WWTF	UD	\$35,990	3,402	\$13.00	\$22.81	0.761%	\$9.81	75.46%	0.327%	* 11	25.2%	Yes
44	MO-0040835	Crane WWTF	S	\$35,432	606	\$21.47	\$21.53	0.729%	\$0.06	0.28%	0.002%		16.0%	Yes
45	MO-0093564	St James WWTP	S	\$45,222	1,436	\$26.89	\$27.02	0.717%	\$0.13	0.48%	0.003%		18.3%	Yes
46	MO-0095028	Caruthersville WWTP	S	\$31,708	2,020	\$18.50	\$18.64	0.705%	\$0.14	0.76%	0.005%		26.0%	Yes
47	MO-0043583	Mound City WWTF	S	\$54,272	583	\$31.68	\$31.75	0.702%	\$0.07	0.22%	0.002%		4.4%	Yes
48	MO-0028860	Farmington East WWTP	S	\$47,963	4,147	\$26.29	\$26.32	0.659%	\$0.03	0.11%	0.001%		11.8%	Yes
49	MO-0026361	Vandalia WWTF	S	\$37,066	1,082	\$19.21	\$19.28	0.624%	\$0.07	0.36%	0.002%		17.6%	Yes
50	MO-0046647	Garden City WWTF	UL	\$47,795	696	\$40.57	\$23.03	0.578%	\$0.00	0.00%	0.000%	*15	13.2%	Yes
51	MO-0048208	Archie WWT Lagoons	S	\$55,289	513	\$22.00	\$22.08	0.479%	\$0.08	0.36%	0.002%		13.1%	Yes

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2021 (Cont.)

No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7			
52	MO-0025283	Union West WWTP	S	\$51,719	3,510	\$14.40	\$14.45	0.335%	\$0.05	0.35%	0.001%		11.1%	Yes
53	MO-0121312	Union East STP	S	\$51,719	1,447	\$14.40	\$14.43	0.335%	\$0.03	0.21%	0.001%		11.1%	Yes
54	MO-0090841	Lake Mykee South WWTF	RC	*11/*19	*11/*19	*11/*19	*11/ *19	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	*11/ *19	Yes
55	MO-0013685	Lake Mykee WWTF	RC											
56	MO-0053937	Moberly Correctional Center WWTF	UM	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	*11/*19	Yes
57	MO-0116742	Country East Subd WWTF	RC	*11/*12	159	\$50.00	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	Yes
58	MO-0112224	Highview Subd West WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
59	MO-0116301	County Line Estates WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
60	MO-0112569	Saratoga Subd WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
61	MO-0112551	Christopher Subd #3 WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
62	MO-0093882	Pass N Gas	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
63	MO-0121100	Millersburg Business Park WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
64	MO-0114979	Little Dixie Mobile Home Park WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
65	MO-0102148	Country Livin' Subd WWTF	RC	*11/*12			*11/ *12	*11/*12	*11/*12	*11/*12	*11/*12	*11/*12	*11/ *12	Yes
66	MO-0100676	Eldon WWTP	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
67	MO-0022098	Republic WWTP	UM	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2021 (Cont.)

No. *4	Permit No.	Facility Name *5	Pollution Control Option *6	Annual MHI *7	Number of Service Users	Current Monthly Sewer Rate Per User	Projected Monthly Sewer Rate Per User		Increase of Monthly Sewer Rate Per User				House- holds At Or Below Poverty *7	Affordability *8
						\$	\$	% of Monthly MHI *7	\$	%	% of Monthly MHI *7			
68	MO-0082171	Lodge of the Four Seasons WWTF	S	\$54,138	*13	\$34.07	*13	*13	*13	*13	*13	*13	14.8%	Yes
69	MO-0024911	KC Blue River WWTP	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
70	MO-0024929	KC Westside WWTP	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
71	MO-0025810	Washington WWTP	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
72	MO-0049531	KC Birmingham WWTP	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
73	MO-0048313	KC Fishing River WWTF	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
74	MO-0058629	Middle Big Creek WWTF	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes
75	MO-0116572	DCSD Treatment Plant #2	S	*19	*19	*19	*19	*19	*19	*19	*19	*19	*19	Yes

Table 1. Key Data Utilized or Generated in the Affordability Findings Issued During 2021 (Cont.)

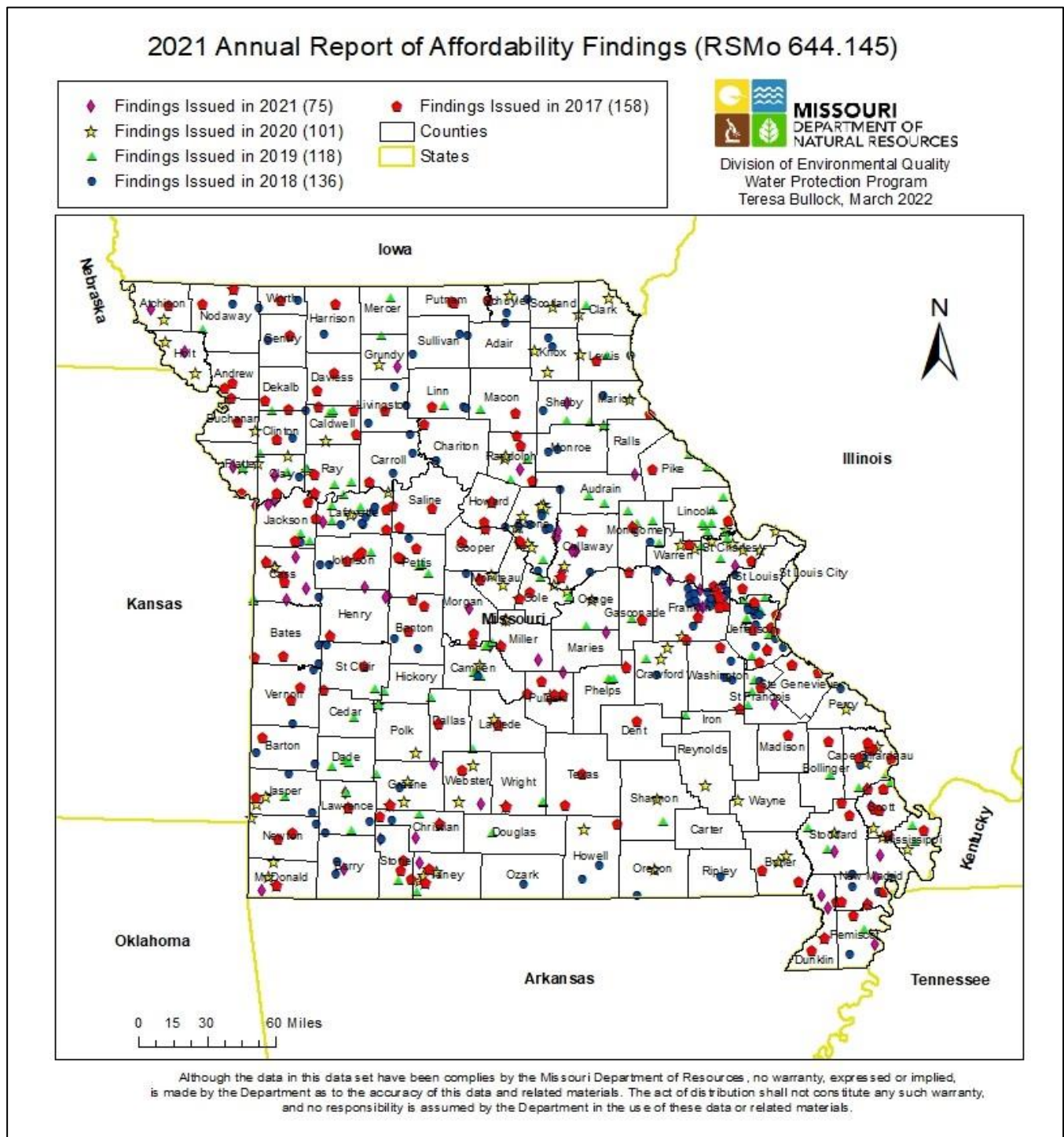
<u>Notes</u>	
*1	Average increase of monthly sewer rate per user = “sum of increase of monthly sewer rate per user” / “53 available data points”
*2	Average increase of monthly sewer rate as a % = “sum of increase of monthly sewer rate as a %” / “53 available data points”
*3	Average increase of monthly sewer rate as a % of monthly MHI = “sum of increase of monthly sewer rate as a % of monthly MHI” / “53 available data points”
*4	This table is arranged in descending order of projected monthly sewer rate per user as a percentage of monthly MHI of the respective community.
*5	<p>Abbreviations used in the facility names include the following:</p> <p>DCSD: Duckett Creek Sanitary District KC: Kansas City PWSD: Public Water Supply District STP: Sewage Treatment Plant Subd: Subdivision TCRSD: Taney County Regional Sewer WWTF: Wastewater Treatment Facility WWTP: Wastewater Treatment Plant</p>
*6	<p>Abbreviations used in the pollution control options include the following:</p> <p>S: sampling only UC: upgrade (collection system) UD: upgrade (disinfection only) UL: upgrade (land application) UM: upgrade (mechanical plant) RC: regionalization and consolidation</p>
*7	MHI: annual median household income
*8	Yes: affordable; No: not affordable; Mandate: federal mandate regardless of affordability.
*9	<p>$[E]=[D/(A/12)]*100$ $[F]=[D]-[C]$ $[G]=[F/C]*100$ $[H]=[F/(A/12)]*100$</p>

Notes (cont.)

- *10 Data not available as the permittees did not provide their current user rates, although the Department had made attempts to obtain the information.
- *11 Analyses included in Abatement Order on Consent documents.
- *12 Not applicable, as different sewer districts use specific rate structures and they are generally considered as sufficient to comply with the permits.
- *13 Not applicable, as schools, churches, nursing homes, airports, ports, training centers, correctional centers, and other institutional facilities do not finance the upgrade, operation, or maintenance of their wastewater treatment facilities based on residential sewer rates.
- *14 Not applicable, as federal-owned, state-owned, and local government-owned systems do not finance the upgrade, operation, or maintenance of their wastewater treatment facilities based on residential sewer rates.
- *15 The projected user rates were lower than the current sewer rates, therefore the current sewer rates were used to assess residential impacts, as it is unlikely the user rates would decrease after upgrading the facilities.
- *16 Projected monthly user rate as a percentage of the monthly MHI exceeds 2%. An affordability threshold for projected monthly user rate as a percentage of the monthly MHI varies depending on the situation of each individual community. The cost analyses associated with these permits have resulted in findings that the projected monthly user rates will likely be affordable. If additional information is provided in the future that indicate the projected monthly user rates are unaffordable, the Department will modify the analyses and permits accordingly and grant extensions to schedules of compliance to mitigate the impacts on the residents.
- *17 Facilities with a projected decrease in monthly sewer rate per user while the current monthly sewer rate per user exceeds 2% of the community's monthly MHI. Since it is unlikely a monthly sewer rate will decrease, in these cases, the Department is working with permittees to secure grants and low-interest loans wherever possible.
- *18 Facilities with a projected 100% or greater increase in monthly sewer rate per user. In all cases, the Department is working with the permittees to secure grants and low-interest loans wherever possible.
- *19 Facilities that waived the affordability analysis requirement.

2. Geographical Distribution: 2017-2021

The locations of the wastewater treatment facilities for which the Department conducted affordability findings during calendar years 2017 through 2021 respectively are illustrated in Map 1 below.



Map 1. Locations of the Wastewater Treatment Facilities with Affordability Findings Issued in 2017 through 2021

3. Conclusion

Based on the information and data collected, derived, and examined, all the new requirements for discharges incorporated into permits for publicly owned sewer systems or water or sewer treatment works, and all actions enforcing provisions of Chapter 644 RSMo or the Federal Water Pollution Control Act by the Missouri Department of Natural Resources during calendar year 2021 met the affordability criteria.

This report was prepared by the Operating Permits Section of the Water Protection Program, Missouri Department of Natural Resources.

Appendix A. Subsections 644.145.4 and 644.145.9 of the Revised Statutes of Missouri

Revised Statutes of Missouri Chapter 644 Water Pollution

644.145.4. The department of natural resources shall adopt procedures by which it will make affordability findings that evaluate the affordability of permit requirements and enforcement actions described in subsection 1 of this section, and may begin implementing such procedures prior to promulgating implementing regulations. The commission shall have the authority to promulgate rules to implement this section pursuant to chapters 536 and 644, and shall promulgate such rules as soon as practicable. Affordability findings shall be based upon reasonably verifiable data and shall include an assessment of affordability with respect to persons or entities affected. The department shall offer the permittee an opportunity to review a draft affordability finding, and the permittee may suggest changes and provide additional supporting information, subject to subsection 6 of this section. The finding shall be based upon the following criteria:

- (1) A community's financial capability and ability to raise or secure necessary funding;
- (2) Affordability of pollution control options for the individuals or households at or below the median household income level of the community;
- (3) An evaluation of the overall costs and environmental benefits of the control technologies;
- (4) Inclusion of ongoing costs of operating and maintaining the existing wastewater collection and treatment system, including payments on outstanding debts for wastewater collection and treatment systems when calculating projected rates;
- (5) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low- and fixed-income populations. This requirement includes but is not limited to:
 - (a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations; and
 - (b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained;

- (6) An assessment of other community investments and operating costs relating to environmental improvements and public health protection;
- (7) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards; and
- (8) An assessment of any other relevant local community economic condition.

644.145.9. The department shall file an annual report by the beginning of the fiscal year with the governor, the speaker of the house of representatives, the president pro tempore of the senate, and the chairs of the committees in both houses having primary jurisdiction over natural resource issues showing at least the following information on the findings of affordability completed in the previous calendar year:

- (1) The total number of findings of affordability issued by the department, those categorized as affordable, those categorized as not meeting the definition of affordable, and those implemented as a federal mandate regardless of affordability;
- (2) The average increase in sewer rates both in dollars and percentage for all findings found to be affordable;
- (3) The average increase in sewer rates as a percentage of median house income in the communities for those findings determined to be affordable and a separate calculation of average increases in sewer rates for those found not to meet the definition of affordable;
- (4) A list of all the permit holders receiving findings, and for each permittee the following data taken from the finding of affordability shall be listed:
 - (a) Current and projected monthly residential sewer rates in dollars;
 - (b) Projected monthly residential sewer rates as a percentage of median household income;
 - (c) Percentage of households at or below the state poverty rate.

Appendix B. Overall Procedure for Making Affordability Findings

The Department conducts an affordability finding, or a Cost Analysis for Compliance (CAFCOM), as part of the renewal process for a National Pollutant Discharge and Elimination System (NPDES) permit, utilizing the following four primary tools and data sources:

- (1) A Financial Questionnaire with a Community Supplemental Survey sent to permit holders categorized as a Publicly Owned Treatment Works (POTW) for collecting information on the sustainability and financial capability of the community; examples of information requested are the "current monthly residential sewer rates," and a primary socioeconomic indicator (Table 1), and "property tax collection rate in the municipality," a secondary socioeconomic indicator;
- (2) The Affordability Prescreening Tool developed by the Department for compiling and analyzing socioeconomic data available from national, regional and local databases, including statistics

from the U.S. Census Bureau; an example of data being “monthly median household income” (Table 1) and “percentage of households at or below poverty” (Table 1);

- (3) A CAPDEWORKS Model developed by Hydromantis Environmental Software Solutions, Inc. for estimating the capital costs and operating and maintenance costs for different wastewater treatment technologies for compliance of upgrades so as to calculate the “projected monthly residential sewer rate” (Table 1);
- (4) The Missouri Rural Population Sustainability Assessment Tool developed by the Environmental Finance Center at Wichita State University for assessing the potential of growth and sustainability of each rural community.

Once the draft NPDES permit is completed, the permit holder is given the opportunity to review and comment on the draft permit and the CAFCom during the 10-day preview and 30-day public notice period. These review and comment periods offer permit holders an opportunity to provide additional information in regard to their community’s unique financial situations before the final NPDES permit is issued. When the NPDES permit contains a Schedule of Compliance, during the 10-day preview, Department staff contact the permit holder via phone calls to ensure the permit holder has received and understood the draft permit and the CAFCom.